



Taxonomic status of *Engraulis nattereri* Steindachner, 1880 (Osteichthyes: Clupeiformes: Engraulidae)

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Engraulis nattereri Steindachner, 1880 was described on the basis of five specimens collected in Pará during the Nathaniel Thayer Expedition. Later on, the species was assigned to *Anchoviella* by Fowler (1941). Including *Anchoviella nattereri* (Steindachner, 1880), *Anchoviella* comprises 17 small to medium-sized valid species (20–160 mm standard length), nine of them distributed in freshwaters of the Amazon, Essequibo, Corantijn and Orinoco river basins, and other eight brackish and marine species distributed along the Atlantic and Pacific coasts of North, Central and South America (Loeb & Figueiredo, 2014).

Although the generic-level classification of *E. nattereri* within *Anchoviella* does not show any controversy, the characteristics provided by Steindachner (1880) in the original description of *Engraulis nattereri* do not allow its proper synonymization with any valid species of the Engraulidae. Thus, herein we discuss the taxonomic status of *Engraulis nattereri*, pointing out the reasons why there are doubts about its validity.

Among the descriptive characters provided by Steindachner (1880) are: long and pointed snout; body depth of almost 25% of standard length (SL); head length of almost 33% SL; posterior margin of upper jaw beyond the vertical through the posterior margin of orbit; dorsal-fin origin closer to caudal-fin base than to tip of snout; anal-fin origin under the vertical through midpoint of dorsal-fin base; pectoral fin long, reaching the base of the pelvic fins; and presence of 12 dorsal fin rays and 28–29 anal-fin rays. The type locality of *Engraulis nattereri* was not precisely indicated, leaving doubts about whether the species was collected in a freshwater or estuarine environment. Also, its original description is not accompanied with figures and no type material was traced at the Naturhistorisches Museum of Wien (NMW), even with recent searches in this and other European fish collections done by one of us (MVL).

Similarities between *Engraulis nattereri*, *Anchovia surinamensis* (Bleeker, 1865), *Anchovia clupeioides* (Swainson, 1839), *Anchoviella blackburni* Hildebrand, 1943 and *Anchoviella lepidentostole* (Fowler, 1911) are mentioned in the literature (Steindachner, 1880; Jordan & Seale, 1926; Hildebrand, 1943). However, the differences between *E. nattereri* and the aforementioned species does not allow its inclusion as a synonym of any species within the Engraulidae with respect to the characteristics contained in its original description.

Steindachner (1880) also redescribed *Anchovia surinamensis* (Bleeker, 1865) and cited some similarities between it and *E. nattereri*, but distinguished the two species through differences in snout length and body depth. Jordan & Seale (1926) identified as *Anchoviella nattereri* five specimens collected in Pará during the Nathaniel Thayer Expedition, but considered it similar to *Anchovia clupeioides* (Swainson, 1839). However, analysis of this material in the Museum of Comparative Zoology (MCZ) indicated that the specimens actually correspond to *Anchovia clupeioides* rather than to Steindachner's *Engraulis nattereri*.

Hildebrand (1943) referred to similarities between *Anchoviella nattereri*, *Anchoviella blackburni* and *Anchoviella lepidentostole*. The description of *A. blackburni* was based on few juveniles from the Gulf of Venezuela. Although it has been considered a valid species (e.g. Kullander & Ferraris Jr., 2003), its diagnostic features do not permit its clear separation from *A. lepidentostole* leading to the conclusion that it might be a junior synonym of that species (Loeb *in prep*). Kullander & Ferraris Jr. (2003) admit that *Anchoviella nattereri* could be a senior synonym of *A. lepidentostole*. However, according to our data, specimens that belong to *A. lepidentostole* have a longer head (17.4 to 26.9% of SL vs. almost 33% of SL in *A. nattereri*), a shorter pectoral-fin (its tip not reaching the base of pelvic fins vs. pectoral fin long, reaching the base of the pelvic fins in *A. nattereri*), and fewer anal-fin rays, (18–26 vs. 28–29 anal-fin rays in *A. nattereri*).

Thus, *Engraulis nattereri* Steindachner, 1880 is considered as a *nomen dubium*. This proposition changes to 16 the number of valid species assigned to *Anchoviella*, and to eight the number of strictly freshwater species belonging to the genus.

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